



# EMC News

March 5, 2008

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## **WORKSHOP ANNOUNCEMENT**

*Submitted by Tania Schusler*

### **Landscaping to Save Energy**

Tuesday, March 11, 7:00-9:00 pm  
4-H Acres, 418 Lower Creek Road, Ithaca

Saving energy is not only about what you do inside your house! Landscaping to save energy can reduce your energy costs and increase your home's comfort. Join Monika Roth and learn about wind breaks, placement of trees for heating and cooling, and foundation plants to minimize air infiltration. \$5 fee. Please call 272-2292 to register.

## **ENERGY COMMITTEE REPORT**

*Submitted by Kenny Christianson*

The EMC Energy Committee met on Tuesday, February 12. We reviewed a resolution presented by Sylvester Johnson and the Climate Change Action Group. Dooley Kiefer presented a revised resolution that the committee approved to be considered by the entire EMC. Due to the many questions and concerns raised by the council, it became obvious that there is a need for more education and information before the discussion can proceed. To that end, we will post short articles in the EMC News (See today's article on externalities), and Neha Khanna will provide a presentation to the EMC on environmental economics as soon as practicable.

The next Energy Committee meeting is Thursday, March 20 at 5:00 p.m. in the Old Jail small conference room. The committee will decide how to proceed from there.

## **EXTERNALITIES**

*Submitted by Kenny Christianson*

When economists use supply and demand analysis to understand markets, an implicit assumption is that all of the costs and benefits are included in the market. The demand curve

reflects all of the benefits that consumers receive in markets, and the supply curve includes all of the costs of production. Buyers and sellers are aware of the full costs and benefits of their actions.

When a market does not reflect all of the costs and benefits of production or consumption, then externalities exist. Externalities are defined as costs or benefits that accrue to individuals not directly involved in the transaction. Externalities can be positive or negative. Positive externalities exist when benefits are received by those outside the market, as in the case of public education. Negative externalities exist when costs are borne by those outside the market, as in the case of pollution. Since pollution is a pervasive environmental problem, a large chunk of environmental economics focuses on the issue of negative externalities.

With a negative externality, producers or consumers do not have to bear the full costs of their actions. Some of these costs are transferred to others outside of the market. For example, residents of Pittsburgh had to pay some of the costs of steel production through a reduction in air quality, or bartenders had to suffer the costs of secondhand smoke when their customers consumed cigarettes. If

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### **Upcoming EMC meetings!**

March 12<sup>th</sup> at 7:00pm  
April 9<sup>th</sup>, May 14<sup>th</sup>, June 11<sup>th</sup>  
At the Transit Center

Members: Remember to notify the Chair if you will be absent!

Steve Nicholson, 539-6923 or  
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consumers or producers do not have to pay the full costs of their actions, too much of the good will be consumed or produced. In economic theory, the remedy for negative externalities is to increase the costs of production or consumption, or to “internalize” the external cost.

If a producer is imposing negative externalities on others, there are many ways to reduce the negative externality by increasing production costs. One method is to tax the pollution. Another method is to cap the pollution at a certain level and create a market for pollution permits. If the government auctions off the permits, it receives the revenue. If producers are allowed to sell credits, those with the least-cost methods of pollution reduction will reduce their pollution and sell the credits to others. With either taxes or a cap-and-trade system, the costs to the polluter are increased, so there is an incentive to reduce the pollution.

Other possible remedies involve quantity restrictions or mandating technology. For instance, the Clean Air Act of 1972 mandated that polluters must install the “Best Available Control Technology” in non-attainment areas. The government could instead just regulate the amount of output produced, as we have done with DDT or second-hand smoke. Finally, the government can regulate the inputs used, as with the prohibition of using leaded gasoline when consuming driving services.

In my next installment, I will further explore the costs and benefits of various remedies to negative externalities. Stay tuned!